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ABSTRACT

In a study of 30 elementary school teachers' perceptions of the rewards of teaching, two major types of intrinsic rewards were found. One kind of reward came from enjoying interactions with the students regardless of the outcome. The other type of reward is achievement oriented and results from feeling instrumental in students' accomplishments. The two types of rewards were negatively related to one another, and each was related to particular factors in the work setting. Correlations were found between types of teaching rewards and students' socioeconomic status, length of teaching experience, and teachers' perceptions of challenges and skills. It was found that student attention in social studies classes was significantly connected with teacher rewards. Differences emerged between social studies and mathematics classes conducted by teachers who were achievement oriented as opposed to those who were experience oriented. Teachers who most enjoyed interacting with students were most likely to engage students in active learning modes that held their attention in social studies classes. Achievement-oriented teachers demanded little active participation of students and used individual rather than cooperative student pacing, which is particularly effective in mathematics classes. Students' attention in these classrooms was neither relatively high nor relatively low. (FG)

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TYPES OF INTRINSIC REWARDS OF TEACHING AND THEIR RELATION
TO TEACHER CHARACTERISTICS AND VARIABLES IN THE WORK SETTING

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The research reported in this paper is based on the author's doctoral
research at The University of Chicago.

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Introduction/Purpose

The research reported in this paper is part of a larger study of rewards of teaching, specifically the intrinsic rewards experienced by elementary school teachers. One purpose of this larger research effort was to identify relations between rewards of teaching and relations between rewards of teaching and characteristics of teachers and their work settings. This paper presents findings about types of intrinsic rewards of teaching and how these different types of rewards are related to teacher, subject matter, and student variables.

Theoretical Framework

To study intrinsic rewards of teaching, Csikszentmihalyi's (1975) theoretical model for enjoyment was used. This model posits both the structure of an enjoyable activity and the resulting state of enjoyment or flow. Intrinsically rewarding experiences are defined as those in which the interaction between a person and the environment is its own reward.

According to this model, involvement in almost any activity can be intrinsically rewarding. The central requirement is that the situation provides the person with information that his actions are meeting a set of challenges in the environment. When a person is engaged in an activity in which he perceives the challenges to be in relative balance with his skills, he feels intrinsically rewarded. This is an experience of enjoyment, and within the model, the experience is called flow.

Methods and Data Source

Thirty elementary school teachers in the greater Chicago area were interviewed. Eighteen of these teachers were fifth grade teachers participating

in a study of classroom resource allocation conducted by the Educational Finance and Productivity Center at The University of Chicago and sponsored by the National Institute of Education. The classroom of each teacher was observed by two observers for approximately three weeks during mathematics and social studies classes. Observation records on task engagement of eight students in each classroom provided the student attention data for this study. In addition to interviewing the eighteen teachers whose classrooms were observed, twelve other fourth- or fifth-grade teachers were interviewed to obtain a larger sample and further details about intrinsically rewarding teaching experiences. The thirty teachers represented schools with various combinations of levels of school expenditure and community socioeconomic status.

To identify rewards of teaching, teachers were asked first to respond to an open-ended interview question, "What is the most rewarding thing about teaching for you?" and then to rank ten reasons for enjoying their work. The ten reasons for enjoying work included extrinsic and ancillary rewards (Lortie, 1975) as well as intrinsic rewards. Correlational procedures were used to examine relations between rewards of teaching and to relate teacher enjoyment to level of student attention. Potentially intervening variables related to characteristics of the school setting (e.g., SES of the community and level of school expenditure) and characteristics of the teachers (e.g., years of teaching experience and hours spent on preparation for teaching) were considered.

Results

It had been expected that the intrinsic rewards of teaching would relate positively to one another and would be orthogonal to the extrinsic rewards. Such a pattern was not found. What was found is that there are two major

types of intrinsic rewards of teaching which can be measured and these two types are negatively related to one another: enjoying student achievements (the feeling that students have learned as a result of one's efforts), and enjoying the experience of interacting with students.

The reward that comes from enjoying interaction with students is the type of intrinsic reward defined by the flow model. Regardless of the outcome of the activity, the interaction itself is intrinsically rewarding. The exchange of ideas, the matching of perceptions, the mutual affection--these are the qualities of the interaction that make for this type of enjoyable teaching experience.

The reward that comes from feeling instrumental in students' accomplishments is a different type of intrinsic reward. It is different in that one's enjoyment of teaching is contingent on some observable outcome of the activity--a score on a test, a response to a recitation question, the quality of work done on a homework assignment, a student's verbal or nonverbal expression indicating that he understands, and so on. Sometimes these achievement-oriented rewards are experience while the teacher is directly working with students, but they also occur days and years later.

Before discussing the findings further, it is important to note that both types of intrinsic rewards are meaningful to most teachers. Generally, teachers value both the process and product of their work. It would be surprising to hear a teacher say either that he didn't care about students learning or that the experience of interacting with students was inconsequential to him. But, according to this study, teachers emphasize one or the other of the intrinsic reward orientations to a significant degree. And, not only are these two emphases negatively related to one another, but also, each type of reward is related to particular factors in the work setting, in the teacher, and in the students.

Types of intrinsic teaching rewards and their relation to teacher and student variables. The type of intrinsic reward emphasized correlates with students' socioeconomic status. Teachers whose most important intrinsic reward is that of feeling instrumental in student accomplishments are teachers in low SES school communities ($r = -0.57$, $p < .002$, $n = 28$). It may be that teachers who work with children from poorer families believe that education and the marks of accomplishment associated with it (i.e., certificates, diplomas, degrees) will eventually enable their students to get good jobs and thereby enjoy a better economic standard of living than the students' parents have experienced. Related to this may be teachers' inculcation of middle-class values. Perhaps teachers of lower SES students are striving to help their students adopt the middle-class work ethic which stresses task achievement rather than task enjoyment.

The only demographic characteristic of the teacher found to be related to intrinsic rewards was length of teaching experience. (Other teacher characteristics considered were: sex, amount of education, and amount of time spent on school-related activities outside of school hours.) As the number of years of teaching experience increased, the relative importance of "reaching students" also increased ($r = 0.37$, $p < .06$, $n = 28$). People who remain in teaching for a longer period of time may be those who receive feedback that they are indeed helping students learn and develop. Or it could be that the years of teaching have an influence on the type of intrinsic reward which becomes most important to teachers; the occupation itself might influence one's view of what is to be enjoyed.

Teachers' reward orientations were also correlated with their perceptions of the structure of the teaching activity (i.e., their

perception of the balance between challenges and skills involved in teaching). According to the model for enjoyment, teachers who perceived a relative balance between challenges and skills were said to experience flow. It was found that the intrinsic reward orientations did correlate significantly with flow in teaching, with the particular subject matter being important.

The findings indicate that teachers who most enjoy the experience of interacting with students feel a balance between challenges and skills for teaching social studies ($r = 0.34$, $p < .05$, $n = 24$) and their favorite subject ($r = 0.34$, $p < .05$, $n = 28$). Teachers who report deriving the most enjoyment from helping students learn (considering "reaching students" as a singular reward) indicate a balance between challenges and skills in teaching mathematics ($r = 0.39$, $p < .10$, $n = 28$). Teaching mathematics and teaching social studies involve teachers in activities that differ in goals, tasks, required skills, and feedback. Teachers who enjoy reaching and influencing students may well find that teaching a "skills subject" such as mathematics provides them with feedback that they are helping students learn mathematical algorithms and operations. Teachers who feel rewarded by interaction with students can gain rewards from teaching subjects which are their favorite and subjects like social studies which may be perceived as involving more opportunities for discussion, role playing, field trips, projects, and other activities that bring the teacher into closer personal contact with students and involve considerable exchange of ideas between the teacher and students. In teaching the two subjects, teachers might also emphasize different cognitive processes. Divergent thinking might be more encouraged in social studies classes, convergent thinking in mathematics classes. Teachers' preferences

for using and teaching one or the other of these thinking processes could be affecting the relations between types of intrinsic rewards and subject matter.

As findings continue to be reported, it is important to remember that most of the thirty teachers in the sample taught both mathematics and social studies. Data regarding the two subjects came from the same group of teachers.

Types of intrinsic rewards of teaching and student attention.

Regardless of how teaching rewards were measured--by responses to ranking rewards, by responses to open-ended questions, or by a composite of the rankings and open-ended responses--the data repeatedly and regularly indicated that student attention in social studies classes, but not in mathematics classes of the same teachers, is significantly connected with teaching rewards. Students are more involved in social studies activities when teachers most enjoy the experience of teaching and when teachers' enjoyment of the teaching process is considerably greater than their enjoyment of student achievements ($r = 0.36$, $p < .10$, $n = 16$). Further, social studies attention decreases in classrooms of teachers who feel most rewarded by reaching and influencing students ($r = -0.67$, $p < .005$, $n = 15$; $r = -0.35$, $p < .10$, $n = 16$; $r = -0.64$, $p < .005$, $n = 15$).

These findings raise several questions: Why do teachers who most value student achievements have low rates of student attention in social studies, while teachers who emphasize the experience-oriented intrinsic reward have significantly higher attention rates in social studies? And why is student attention in mathematics classes not related to either reward orientation? In what ways is the subject matter related to teacher and student behavior? Are teacher reward orientations related to the

way in which teachers manage and structure the classroom? These questions can be explored by considering them in relation to findings being reported in other current studies.

Types of intrinsic rewards of teaching and ecological features of classroom instruction. Stodolsky's (1981) analyses of the ecology of classroom instruction in fifth-grade mathematics and social studies classes identify interesting contrasts between the organization and conduct of instruction used in the two subjects. The content of mathematics classes is similar across classes; the emphasis is on the learning of algorithms and skills. The content of social studies classes varies considerably across classes and is less skill-oriented than mathematics. In fifth-grade social studies, students could be studying, for example, geography, history, interpersonal relations, or occupations. The instructional format also is more varied in social studies classes than in mathematics classes. In mathematics classes, more time is spent on direct practice through the use of seatwork. Individualized seatwork is found in mathematics but not in social studies classes, whereas group work, student reports, and audio-visual segments occur only in social studies classes. In comparison with mathematics classes, social studies classes are more likely to contain simultaneous activities with fewer students in each group. Social studies classes also contain more instances when student interaction is either permitted or required for accomplishment of the task.

Further, Stodolsky found that teacher behavior varies according to these interaction patterns and instructional formats. Compared with their behavior in social studies classes, teachers in mathematics classes are more likely to let students work on their own and are more likely to lead recitations. In social studies but not in mathematics classes, teachers spend time giving students assistance and help in coordinating

classroom activities. Related to these teacher leadership patterns is the matter of who paces or controls the rate of work--the teacher, the student, the teacher and students together, or the students with one another. It was found that the amount of time that is teacher-paced is similar in the two subjects. However, in mathematics much more time is paced by students individually, while in social studies more time is cooperatively paced by students working together.

There also is a difference between the cognitive level of tasks in the two subjects. Tasks in mathematics are predominantly oriented toward lower mental processes, but tasks in social studies involve a range of mental processes from simple to complex, as well as some which are not cognitive (e.g., painting murals).

The picture of a "typical" mathematics classroom is one of students working individually at their desks on drill exercises or responding to teacher-led recitations. This would, it seems, be a context where teachers who focus on student achievements could sense their effectiveness. There is evidence in this study that these teachers do feel competent in teaching mathematics and are likely to experience achievement-oriented intrinsic rewards. However, their sense of enjoyment does not relate to greater than average student attention. Teachers who enjoy the interpersonal relationship with students probably find little opportunity to experience this in a mathematics class. Their intrinsic reward orientation neither stimulates nor diminishes student involvement.

It isn't possible to portray a picture of a "typical" social studies classroom because there is considerable variation from classroom to classroom. However, compared with the mathematics classrooms, the social studies classroom is more likely to be one where students are actively

engaged in a variety of activities, sometimes occurring simultaneously, and including small groups of students working cooperatively on tasks which at times involve higher mental processes. The teacher is moving around the room encouraging and helping students coordinate activities. This context would seem optimal for teachers who enjoy interacting with students. And however teachers communicate this enjoyment--by their enthusiasm, excitement, intensity, confidence, and other expressions--the students seem to respond with increased involvement. Teachers who most value student accomplishments may find that the social studies classroom is less under their control than they would like. Their attempts to influence students and help students achieve certain tasks may actually backfire and decrease student involvement. The varied and relatively open-ended classroom context does not lend itself to a teaching style that is more structured and expects specific predetermined outcomes.

Because some of the teachers, students, and classrooms included in this study are the same as some included in Stodolsky's research, it is possible to look in more detail at the organization and conduct of instruction in classrooms according to teachers' intrinsic reward orientations. For the eighteen teachers who were part of the larger NIE study and who were included in Stodolsky's analyses, data on the following variables were examined: percentage of student occupancy time in each of various instructional formats, percentage of student occupancy time in each expected cognitive level, and percentage of student occupancy time in each type of pacing.¹ These data were examined only

¹Percentage of student occupancy time' was calculated by multiplying the number of students participating in each of the categories of the variables being considered (i.e., the variables of instructional format, cognitive level, and source of pacing) by the number of minutes which students spent in that type of experience. This student-minute measure of time reflects the relative importance placed on each type of instructional format, cognitive level, and pacing.

for social studies classes because it was in these classes where variations occurred; the instructional format, cognitive level, and source of pacing were similar across the mathematics classes.

Compared with teachers who reported the achievement-oriented reward, teachers who expressed the experience-oriented reward were more likely to involve students in discussion ($r = 0.40$, $p < .05$, $n = 15$) and in situations where the teacher gives instructions ($r = 0.48$, $p < .05$, $n = 15$) (teachers commonly gave instructions prior to discussion and group work activities). They were less likely to use seatwork as an instructional format ($r = -0.35$, $p < .10$, $n = 15$). Although the correlations lacked statistical significance, the experience-oriented teachers had a tendency to use more group work, more student reports, and less recitation. The achievement-oriented teachers showed almost a reverse pattern: significantly less discussion ($r = -0.61$, $p < .01$, $n = 15$); a tendency to use less group work, student reports, and teacher instruction-giving; and a tendency to use more recitation.

Teachers' reward orientations also showed some correlations with the cognitive levels expected to operate in their classes. Teachers with the two reward orientations devoted similar amounts of time to two cognitive levels: receiving information and developing concepts and skills. However, the experience-oriented teachers devoted more social studies time to applying concepts and skills ($r = 0.46$, $p < .05$, $n = 15$) and using higher mental processes ($r = 0.37$, $p < .10$, $n = 15$). Teachers expressing the achievement orientation expected students to spend less time in applying concepts and skills ($r = -0.47$, $p < .05$, $n = 15$) and in using higher mental processes ($r = -0.27$, $p > .10$, $n = 15$).

The source of pacing in the social studies classroom also showed some association with teachers' reward orientations. Even though

the correlations are not at statistically significant levels, teachers with different intrinsic reward orientations used different types of pacing in their social studies classes. Compared with the achievement-oriented teachers, the experience-oriented teachers tended more often to have students cooperatively pace their work and less often to have students pace their work individually or by external sources such as audiovisual materials. The achievement-oriented teachers were more likely to have students individually pace their work and less likely to structure activities so that students cooperatively pace their efforts.

When considered together, these findings amplify one another and reveal patterns involving teachers' reward orientations and the way they manage and structure instruction in subjects such as social studies. Teachers who most enjoy the process of interacting with students are likely to use instructional formats which engage students in relatively active learning modes that are cooperatively paced by students and stimulate application of concepts and skills and development of more complex cognitive processes. As pointed out before, these teachers also achieve higher levels of student attention to the social studies learning experiences. The pattern for the achievement-oriented teachers is one which includes relatively little active participation by students in learning activities, little instruction beyond the lowest levels of cognitive functioning, and more use of individual student pacing rather than cooperative student pacing. Students' attention in these classrooms is neither relatively high nor relatively low.

Summary

The findings of this study agree with conclusions already reported in the literature: teachers enjoy their work for intrinsic reasons;

they enjoy the feedback received from working with students. However, this study indicates that the type of feedback which brings about enjoyment is not unitary in nature. Some teachers emphasize intrinsic rewards received by realizing students have achieved educational goals; other teachers emphasize intrinsic rewards gained from the process of interacting with students. Certain characteristics of the teacher, variables in the work setting, and ecological features of the classroom relate differentially to the types of intrinsic rewards of teaching. These relations can be used to help explain student engagement in classroom activities. Findings of this study have important implications for both teacher education and future research on teaching and learning.

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